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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,971	09/16/2003	Zbigniew Tokarski	3216.23US01	2678

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/663,971

Applicant(s)

TOKARSKI ET AL.

Examiner

Christopher RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,12,13,18,19 and 27 is/are rejected.
- 7) ☒ Claim(s) 2,4-6,8-11,14-17 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 7-10, 15, 16, 29, and 30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 7 fails to further limit claim 1 because claim 1 requires "E" to be a bond while claim 7 describes "E" as an aromatic group. An aromatic group is not a bond (e.g., single bond, double bond, etc.). The Examiner suggests that claim 1 be amended to present "E" as either a bond or an aromatic group. Claims 8 and 9 are objected to on the same basis noting their dependence on claim 7. Claims 10, 15, 16, 29 and 30 are also objected to because the thiadiazolyl group is not a bond and cannot be represented by any of the atoms or groups presented for Z.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 12, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Watarai *et al.* in US Patent 4,594,304.

Watarai discloses an organophotoreceptor containing a conductive substrate and an electrophotographic light sensitive layer containing a charge transporting compound given by

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the formulae (16), (17), (18), or (19). The photoreceptor of Figure 2 contains a charge generating substance 3 dispersed in a charge transporting medium 4 containing a binder resin and a charge transport compounds according to the invention (col. 17, l. 26-32). Note Figures 3 and 4 where the charge generating substance is located in one layer and the charge transport compound is located in a different layer (col. 17, l. 33-col. 18, l. 14). Also see Example 4.

Claims 1, 3, 12, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Horie *et al.* in US Patent 4,619,880.

Horie discloses an organophotoreceptor containing a conductive substrate and an electrophotographic light sensitive layer containing a charge transporting compound given by the formulae (1), (2), (3), or (4). In the photoreceptor, a charge generating substance is located in one layer and the charge transport compound is located in a different layer (Abstract; col. 15, l. 46-50; Examples 2 and 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 7, 12, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watarai *et al.* in US Patent 4,594,304.

Watarai was discussed above and that discussion is incorporated here. In addition to the specifically disclosed charge transport compounds of the formulae (16), (17), (18), or (19), the

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general formula (II) (col. 4) discloses and suggests other compounds meeting the requirements of the instant claims, such as when X is the compound given by the formula at column 5, line 25 and $m=1$ and at least one of R^8 and R^9 is either diethylaminophenyl or dimethylaminophenyl, and the other is phenyl.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose X as the compound given by the formula at column 5, line 25 and $m=1$ and at least one of R^8 and R^9 is either diethylaminophenyl or dimethylaminophenyl, and the other is phenyl because each of these groups is suggested by Watarai as effective to give the results of the invention and the reference directs the artisan toward R^8 and R^9 as either diethylaminophenyl or dimethylaminophenyl based on the exemplified compounds.

Claims 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watarai *et al.* in US Patent 4,594,304 as applied to claims 1, 3, 7, 12, and 27 above, and further in view of *Handbook of Imaging Materials*. Diamond, Arthur S & David Weiss (eds.) pp. 145-164, 239-242.

Watarai was discussed above. This reference does not specify the apparatus of the instant claims but the reference does disclose production of images using the photoreceptor in the examples. Liquid development is specifically used to form an image in Example 22.

Diamond teaches that photoreceptors are conventionally placed in imaging apparatuses that contain a light components (Figures 4.1 and 4.2). As seen in Figure 4.2, a laser diode can be used to form the electrostatic latent image. Liquid development systems are particularly contemplated on pages 239-242.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the photoreceptor of Watarai in a conventional imaging apparatus as

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discussed by Diamond because this permits the artisan to rapidly reproduce a desired image in an office or home setting. Liquid development apparatuses would have been obvious in order to produce detailed images, particularly in view of Watarai specific disclosure of liquid development in Example 22.

Terminal Disclaimer

The terminal disclaimers filed on 29 April 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US applications 10/832596 and 10/760039 have been reviewed and is accepted. The terminal disclaimers have been recorded.

Allowable Subject Matter

Claims 2, 4-6, 10, 11, 14-17, and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
6 September 2005



CHRISTOPHER RODEE
PRIMARY EXAMINER